Clarion

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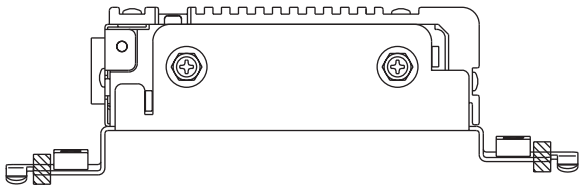
Service Manual



NISSAN Automobile Genuine
Woofer Amplifier

Model EN-1204D
(Genuine No.28060 7Y000)

SPECIFICATIONS

Gain:	10+3dB/-3dB(280mV,60Hz)
S/N ratio:	More than 74dB(60Hz)
Distortion:	Less than 0.2%(60Hz)
Maximum power output:	
	40W x2
Speaker impedance:	2 ohm
Power supply voltage:	DC13.2V
	negative ground
Dimensions(mm):	107(W) x36(H) x110(D)
Weight:	800g

CAUTION

* We cannot supply PWB with component parts in principle. When a circuit on PWB has failure , please repair it by component parts base. Parts which are not mentioned in service manual are not supplied.
* Specification and design are subject to change without notice for further improvement.

COMPONENTS

EN-1204D-A

Main unit	---------	1

To engineers in charge of repair or inspection of our products.

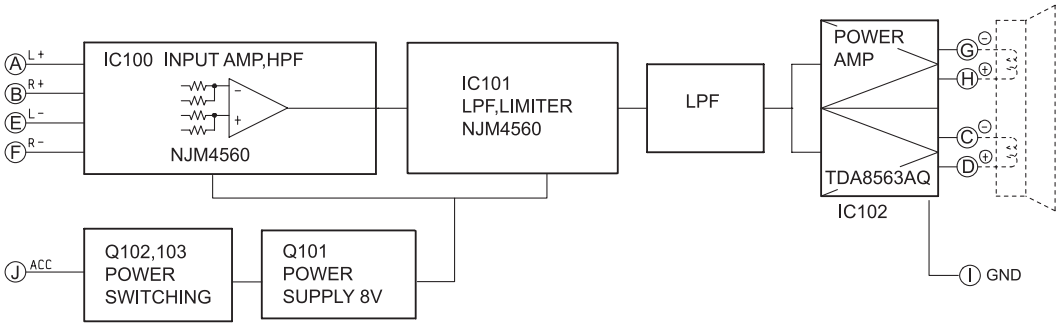
Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.
   The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.
   The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.
2. Place the parts and wiring back in their original positions after replacement or re-wiring.
   For proper circuit construction, use of insulation tubes, bonding,gaps to PWB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.
   If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.
3. Check for safety after repair.
   Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary ploblems around the repaired spots.
   If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
4. Caution in removal and making wiring connection to the parts for the automobile.
   Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
5. Cautions regarding chips.
   Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.

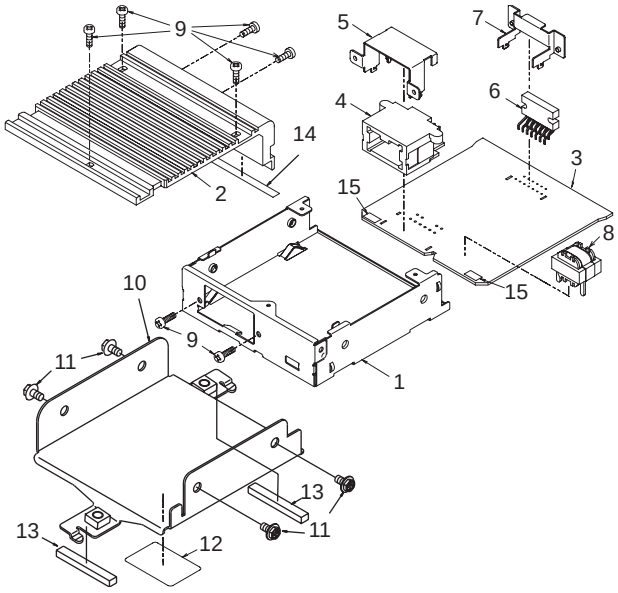
6. Cautions in handling flexible PWB
   Before working with a soldering iron, make sure that the iron tip temperature is around 270℃. Take care not to apply the iron tip repeatedly(more than three times)to the same patterns. Also take care not to apply the tip with force.

7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

BLOCK DIAGRAM



EXPLODED VIEW/PARTS LIST



NO.	PART NO.	DESCRIPTION	Q'TY
1	311-1745-00	LOWER CASE	1
2	313-1732-00	HEAT SINK	1
3	039-1247-00	MAIN PWB(WITH COMPONENT)	1
4	074-1156-00	OUTLET SOCKET	1
5	331-2363-00	HOLDER	1
6	051-2048-00	IC (TDA8563AQ)	1
7	331-2404-00	IC HOLDER	1
8	009-0658-02	CHOKE	1
9	714-2610-81	MACHINE SCREW	7
10	300-7826-01	MTG-BRKT	1
11	716-3491-00	IT SCREW	4
12	286-8460-14	SETPLATE	1
13	345-8583-00	CUSHION RUBBER	2
14	345-8620-00	RUBBER PART	1
15	345-8621-00	RUBBER PART	2

■ELECTRICAL PARTS LIST

MAIN PWB(B1)

REF No.	PART No.	DESCRIPTION
C100	042-0562-68	16V220uF
C101	042-0562-68	16V220uF
C102	042-0562-68	16V220uF
C103	042-0562-68	16V220uF
C104	042-0562-68	16V220uF
C105	042-0562-68	16V220uF
C106	176-1011-50	100pF CH
C108	176-1011-50	100pF CH
C112	042-0562-67	16V10uF
C113	172-8241-15	0.82uF
C114	172-1041-15	0.1uF
C115	042-0548-53	16V100uF
C117	042-0562-70	16V47uF
C118	172-5641-15	0.56uF
C128	172-1041-15	0.1uF
C129	042-0582-00	16V4700uF
C103	184-1083-32	16V1000uF
C132	176-1011-50	100pF CH
C133	176-1011-50	100pF CH
C134	183-4763-39	16V47uF
C200	172-4741-15	0.47uF
C201	172-4741-15	0.47uF
C203	172-3331-15	0.033uF
C204	182-4746-69	50V0.47uF NP
C205	172-3341-15	0.33uF
C207	172-1041-15	0.1uF
C225	176-1011-50	100pF CH
C226	176-1011-50	100pF CH
C300	178-1042-78	0.1uF
C310	176-2211-50	220pF CH
C311	176-1007-50	10pF CH

REF No.	PART No.	DESCRIPTION
C312	176-2201-50	22pF CH
C401	172-1041-15	0.1uF
C402	172-5641-15	0.56uF
D100	001-0347-52	MA4110L
D102	001-0330-90	1SS119
D103	001-2015-00	RL253
D110	001-0429-00	S3V20
D301	001-0347-10	MA4030L
D302	001-0330-90	1SS119
D307	001-0466-90	S5688B
IC100	051-1080-91	NJM4560M
IC101	051-1080-91	NJM4560M
IC102	051-2048-00	TDA8563AQ
J100	074-1156-00	NS10-MW 10P
JW9001	117-0000-05	1/8W 0 ohm JW
JW9002	117-0000-05	1/8W 0 ohm JW
Q1	108-0030-35	2SK30
Q101	193-1858-00	2SD1858
Q102	192-2458-00	2SC2458
Q103	190-1048-00	2SA1048
R100	111-5611-98	1/4W 560 ohm
R101	111-5611-98	1/4W 560 ohm
R102	032-0131-60	1/8W 10k ohm 0.F
R103	032-0131-60	1/8W 10k ohm 0.F
R104	032-0131-60	1/8W 10k ohm 0.F
R105	032-0131-60	1/8W 10k ohm 0.F
R106	032-0131-66	1/8W 100 ohm 0.F
R107	032-0131-66	1/8W 100 ohm 0.F
R108	032-0131-60	1/8W 10k ohm 0.F
R109	032-0131-60	1/8W 10k ohm 0.F
R110	032-0131-65	1/8W 100k ohm 0.F

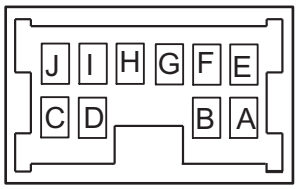
REF No.	PART No.	DESCRIPTION
R111	032-0131-65	1/8W 100k ohm 0.F
R123	117-5621-15	1/8W 5.6k ohm
R124	117-4721-15	1/8W 4.7k ohm
R127	117-4721-15	1/8W 4.7k ohm
R128	111-1021-98	1/4W 1k ohm
R140	111-2231-98	1/4W 22k ohm
R141	111-1821-98	1/4W 1.8k ohm
R142	111-1041-98	1/4W 100k ohm
R143	111-2221-98	1/4W 2.2k ohm
R144	111-2231-98	1/4W 22k ohm
R200	117-5621-15	1/8W 5.6k ohm
R201	117-5631-15	1/8W 56k ohm
R204	111-3631-98	1/4W 36k ohm
R205	117-4331-15	1/8W 43k ohm
R206	117-1831-15	1/8W 18k ohm
R207	117-1831-15	1/8W 18k ohm
R208	117-3921-15	1/8W 3.9k ohm
R209	117-1021-15	1/8W 1k ohm
R210	117-2731-15	1/8W 27k ohm
R211	117-2221-15	1/8W 2.2k ohm
R212	111-2231-98	1/4W 22k ohm
R221	111-2221-98	1/4W 2.2k ohm
R300	111-6211-98	1/4W 620 ohm
R301	111-6211-98	1/4W 620 ohm
R302	117-1541-15	1/8W 150k ohm
R303	111-1051-98	1/4W 1M ohm
R304	117-1031-15	1/8W 10k ohm
R305	111-2221-98	1/4W 2.2k ohm
T100	009-0658-02	0.7mH

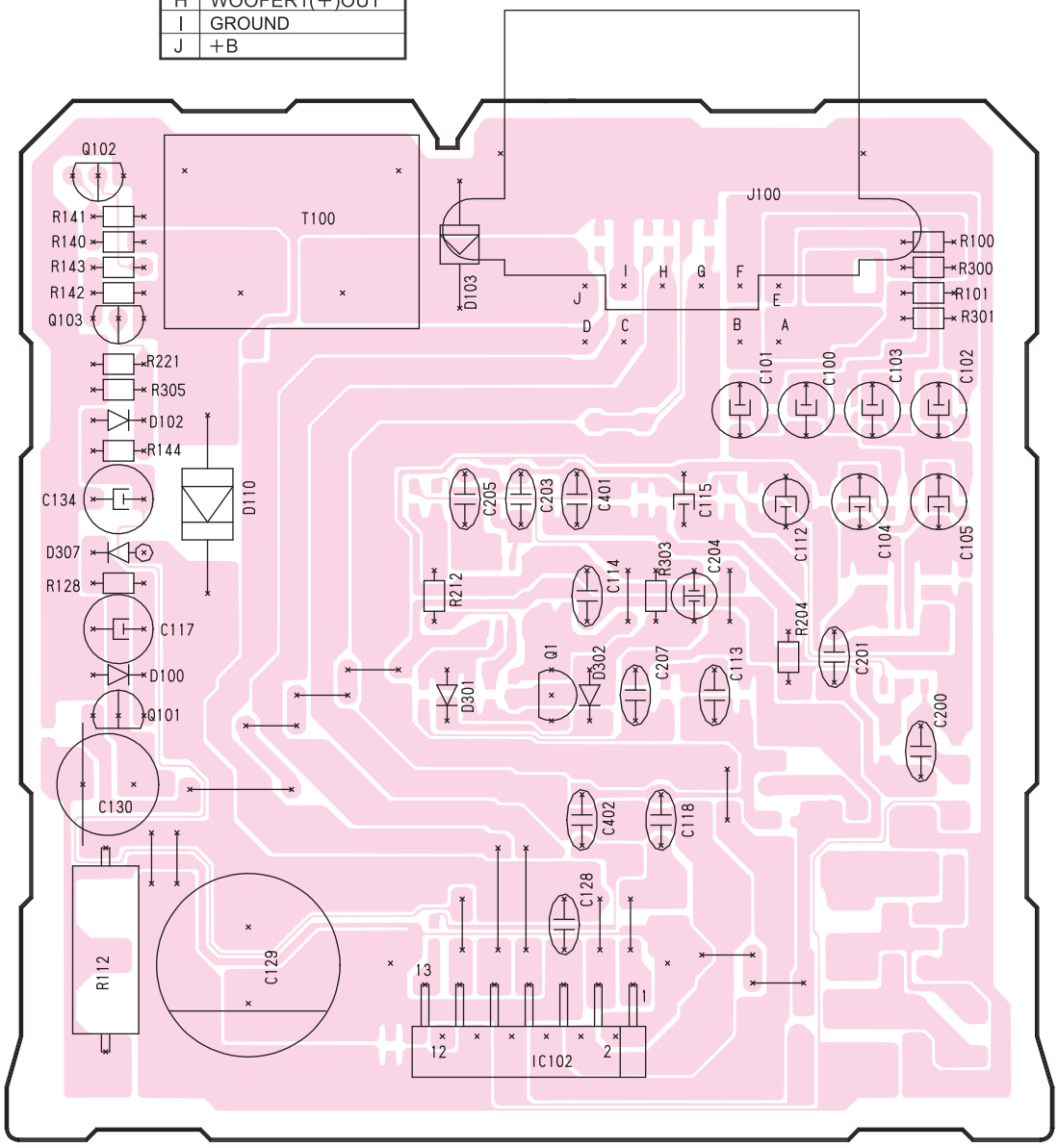
PRINTED WIRING BOARD

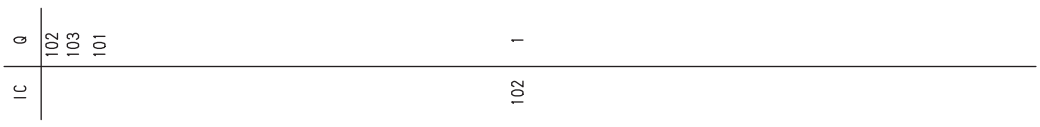
Main PWB Section (B1)

COMPONENT SIDE

No.	Description
A	LH SP(+)IN
B	RH SP(+)IN
C	WOOFER2(−)OUT
D	WOOFER2(+)OUT
E	LH SP(−)IN
F	RH SP(−)IN
G	WOOFER1(−)OUT
H	WOOFER1(+)OUT
I	GROUND
J	+B

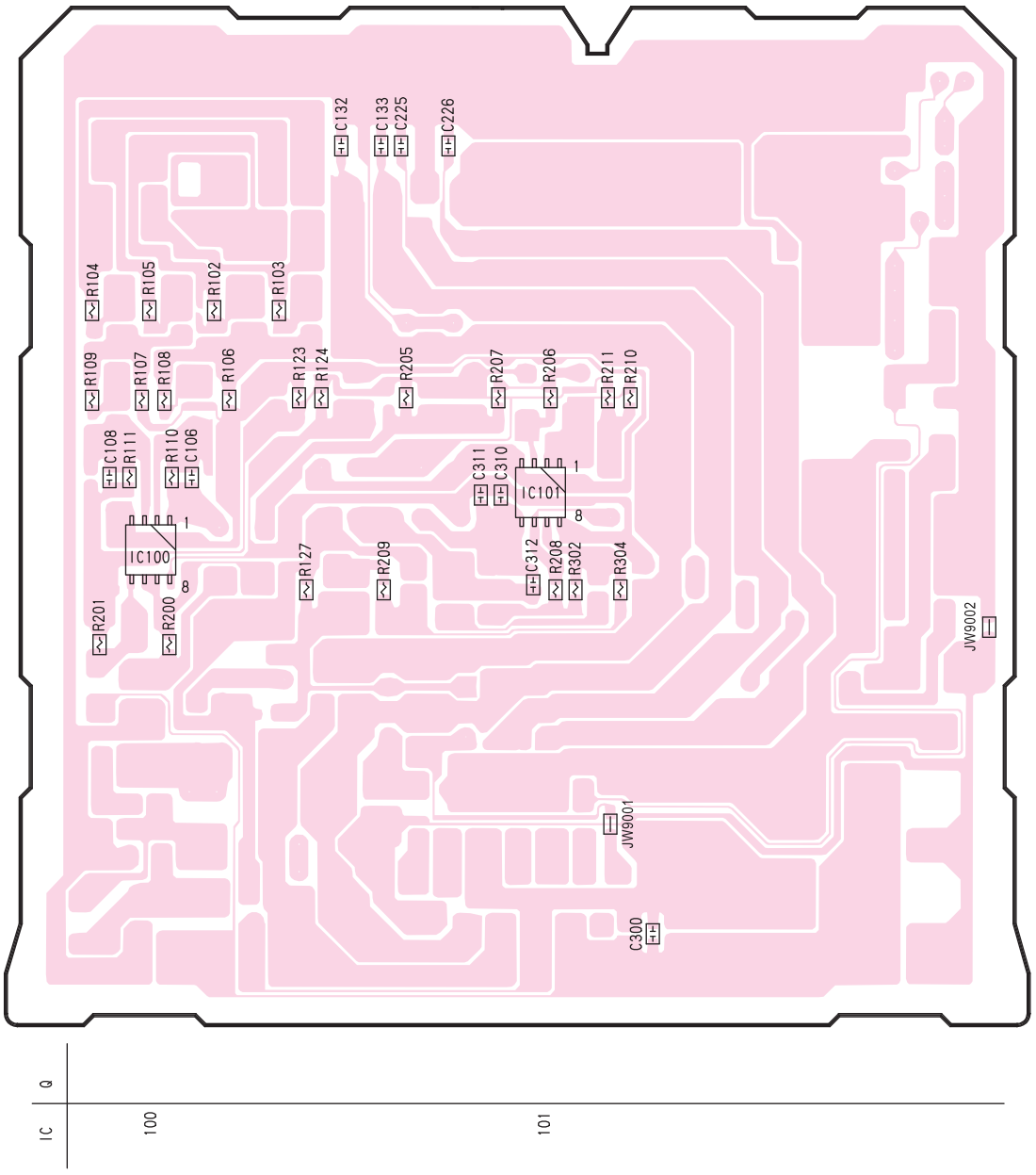






Caution:
COMPONENT SIDE: Parts on the component side seen from the component side are indicated.
SOLDER SIDE: Parts on the solder side seen from the solder side are indicated.

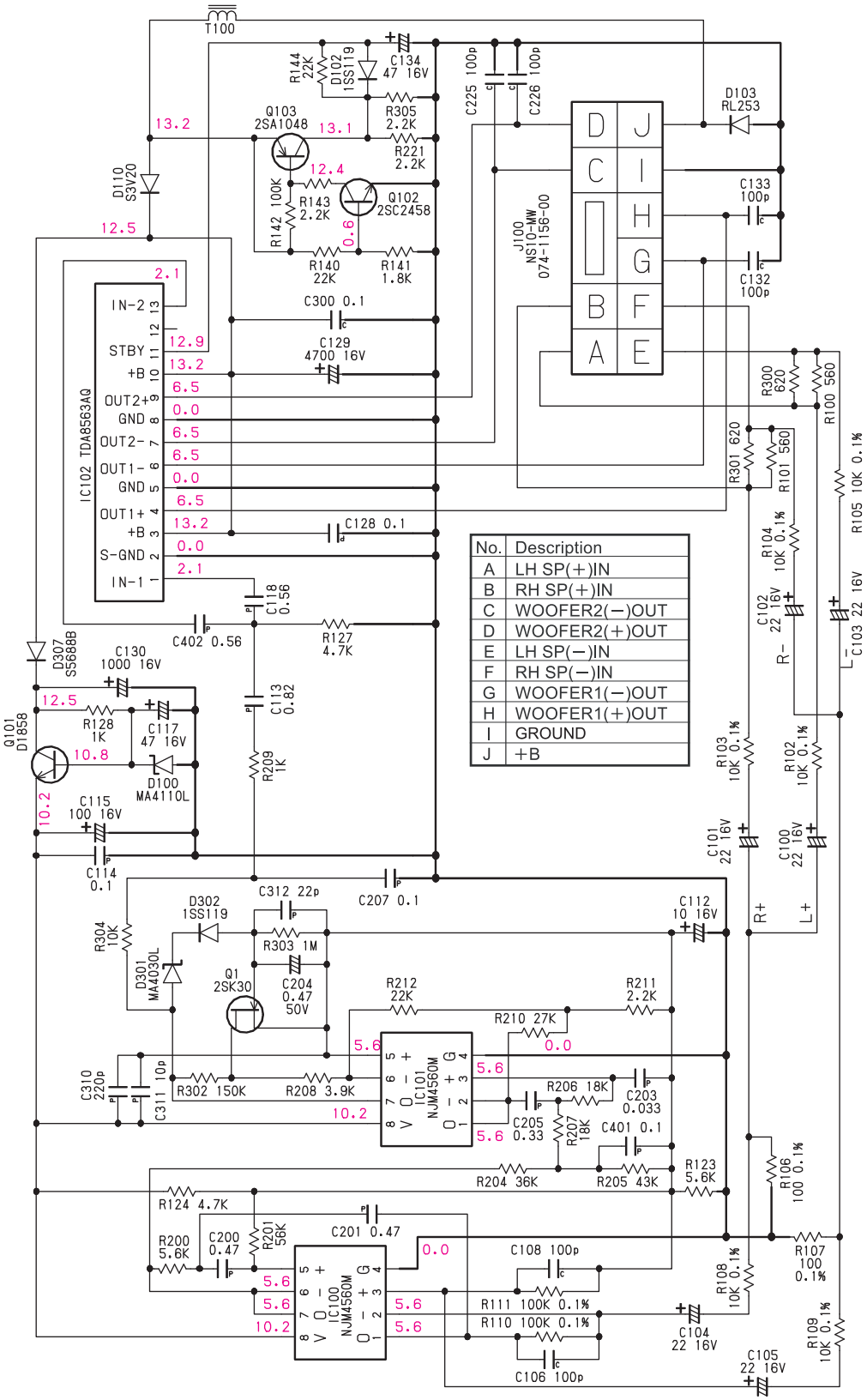
SOLDER SIDE



EN1204D

CIRCUIT DIAGRAM

Main PWB Section



No.	Description
A	LH SP(+)IN
B	RH SP(+)IN
C	WOOFER2(−)OUT
D	WOOFER2(+)OUT
E	LH SP(−)IN
F	RH SP(−)IN
G	WOOFER1(−)OUT
H	WOOFER1(+)OUT
I	GROUND
J	+B